

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1 1. (Currently Amended) A process for the stimulation of production of extracellular
2 dermal matrix proteins in human tissue which comprises simultaneously delivering to said
3 tissue ultrasound and electrical energy in an amount sufficient for the stimulation of
4 production of extracellular dermal matrix proteins in human tissue;

5 wherein a current of said electrical energy is about 100 microamps; and
6 wherein said ultrasound is provided at a frequency in a range of about 1 to about 4
7 megahertz.

1 2. (Original) A process according to claim 1 wherein said electrical energy is a low
2 energy micro-amperage sufficient to stimulate the production of polypeptide collagen and
3 said ultrasound is such that a mechanical pressure gradient is created in the cells that
4 produces specific resilient collagen and elastin.

1 3. (Original) A process according to claim 2 wherein the wave form of said
2 electrical energy is composed of a twin-peaked, unidirectional, capacitors-discharged, high
3 potent wave form with low energy.

1 4. (Original) A process according to claim 3 wherein there is employed a voltage
2 in the range of from about 1 to about 500 volts.

1 5. (Original) A process in accordance with claim 4 wherein there is employed a
2 voltage in the range of about 20-150 volts.

6. (Canceled)

1 7. (Original) A process according to claim 2 wherein said electrical energy is
2 provided at a pulse frequency in the range of from about 5 pulses per second to about 105
3 pulses per second.

8. (Canceled)

1 9. (Original) A process according to claim 2 wherein said ultrasound is provided at
2 an energy in the range of about 0.1-0.5 watts per squared centimeter.

1 10. (Original) A process according to claim 9 wherein said ultrasound energy is 0.3
2 watts per squared centimeter.

1 11. (Original) A process according to claim 2 wherein said ultrasound is pulsed.

1 12. (Original) A process according to claim 2 wherein said ultrasound is delivered
2 in a continuous manner.

1 13. (Original) A process in accordance with claim 2 wherein the ultrasound is
2 synchronized with the electrical energy is modulated from about a 5% duty cycle to a 50%
3 duty cycle and back to a 5% duty cycle.

1 14. (Currently Amended) A process for the stimulation of the natural healing
2 processes in human skin tissue which comprises creating a wound in the dermal layer of said
3 skin tissue and thereafter simultaneously delivering to said skin tissue ultrasound and
4 electrical energy in an amount sufficient to stimulate natural healing processes in said skin
5 tissue:

wherein a current of said electrical energy is about 100 microamps; and
 wherein said ultrasound is provided at a frequency in a range of about 1 to about 4
 megahertz.

1 15. (Original) A process according to claim 14 wherein said wound is created in the
2 dermal layer of skin with the avoidance of removal or disruption of the stratum corneum or
3 epidermis.

1 16. (Original) A process according to claim 14 wherein the simultaneous delivery
2 of said ultrasound and electrical energy is within 24 hours of the creation of said wound in
3 the dermal layer of said skin tissue.

17. (Canceled)

1 18. (Original) A process according to claim 14 wherein said ultrasound is provided
2 at an energy in the range of about 0.1-0.5 watts per squared centimeter.

1 19. (Original) A process according to claim 18 wherein of said ultrasound energy
2 is about 0.3 watts per squared centimeter.

1 20. (Original) A process according to claim 14 wherein said electrical energy is
2 provided at pulse frequency in the range of from about 5 pulses per second to about 105
3 pulses per second.

1 21. (Original) A process according to claim 14 wherein said electrical energy is a
2 low energy micro-amperage sufficient to stimulate the production of polypeptide collagen
3 and said ultrasound is such that a mechanical pressure gradient is created in the cells that
4 produces specific resilient collagen and elastin.

1 22. (Original) A process according to claim 14 wherein said ultrasound is pulsed.

1 23. (Original) A process according to claim 14 wherein said ultrasound is delivered
2 in a continuous manner.

1 24. (Original) A process in accordance with claim 14 wherein the ultrasound in
2 synchronization with the electrical energy is modulated from about a 5% duty cycle to a 50%
3 duty cycle and back to a 5% duty cycle.

1 25. (Original) A process in accordance with claim 14 wherein said wound is
2 accomplished by any modality having the ability to penetrate the skin to the dermal tissue
3 without disruption, damaging or exfoliating any of the stratum corneum or epidermal tissue.

1 26. (Original) A process in accordance with claim 14 wherein the skin tissue is
2 subjected to phonophoresis whereby a subsequent blended, modulated ultrasound and

Application No. 09/977,051
Amendment Dated 6/1/04
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3 electrical energy is employed to enhance the delivery and penetration of topical creams or
4 gels that contain collagen stimulating ingredients.

1 27. (Original) A process in accordance with claim 26 wherein following
2 phonophoresis the stratum corneum of the skin is subjected to mechanical exfoliation.

1 28. (Original) A process in accordance with claim 27 wherein said mechanical
2 exfoliation is carried out so as to systematically remove upper layers of tissue.